

Serial Number: 09/533,427B Changed a file from non-ASCII to ASCII Changed the margins in cases where the sequence text was "wrapped" down to the next line. Edited a format error in the Current Application Data section, specifically**ENTERED** Edited the Current Application Data section with the actual current number. The number inputted by the applicant was the prior application data; or other _____. Added the mandatory heading and subheadings for "Current Application Data". Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer. Changed the spelling of a mandatory field (the headings or subheadings), specifically: Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place. Inserted colons after headings/subheadings. Headings edited included:**RECEIVED**

JUL 26 2002

 Deleted extra, invalid, headings used by an applicant, specifically:

TECH CENTER 1600/2900

 Deleted: non-ASCII "garbage" at the beginning/end of files; secretary initials/filename at end of file; page numbers throughout text; other invalid text, such as _____. Inserted mandatory headings, specifically: Corrected an obvious error in the response, specifically: Edited identifiers where upper case is used but lower case is required, or vice versa. Corrected an error in the Number of Sequences field, specifically: A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted. Deleted ending stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: Other:

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95



1600

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/533,427B

DATE: 07/24/2002
TIME: 15:53:54

Input Set : A:\PTO.DC.TXT
Output Set: N:\CRF3\07242002\I533427B.raw

4 <110> APPLICANT: Chiorini, John
5 Kotin, Robert M.
6 Safer, Brian
7 Davidson, Elizabeth
8 Zabner, Joseph
10 <120> TITLE OF INVENTION: AAV5 VECTOR FOR TRANSDUCING BRAIN CELLS AND LUNG CELLS
12 <130> FILE REFERENCE: 14014.0323U2
14 <140> CURRENT APPLICATION NUMBER: 09/533,427B
15 <141> CURRENT FILING DATE: 2000-03-22
17 <160> NUMBER OF SEQ ID NOS: 26
19 <170> SOFTWARE: FastSEQ for Windows Version 3.0
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 4652
23 <212> TYPE: DNA
24 <213> ORGANISM: Artificial Sequence
26 <220> FEATURE:
27 <223> OTHER INFORMATION: Description of Artificial Sequence:/Note =
28 synthetic construct
30 <400> SEQUENCE: 1
31 tggcaactctc cccctgtcg cgttcgctcg ctcgctggct cgtttggggg ggtggcagct 60
32 caaagagctg ccagacgacg gccctctggc cgtcgcccc ccaaacgagc cagcgagcga 120
33 gcgaacgcga caggggggag agtgcacac tctcaagcaa gggggtttg taagcagtga 180
34 tgtcataatg atgtaatgct tattgtcagc cgatagttaa tgattaacag tcatgtgatg 240
35 tgtttatcc aataggaaga aagcgcgcgt atgagttctc gcgagacttc cgggtataaa 300
36 aagaccgagt gaacgagccc gccgcattc tttgtctgg actgctagag gaccctcgct 360
37 gccatggcta ctttatga agtcattgtt cgcgtcccat ttgacgtgga ggaacatctg 420
38 cctggaattt ctgacagctt tgtggactgg gtaactggc aaatttggg gctgcctcca 480
39 gagtcagatt taaatttgac tctgggtgaa cagcctcagt tgacgggtgc tgatagaatt 540
40 cgccgcgtgt tcctgtacga gtggaacaaa ttttccaagc aggagtccaa attctttgtg 600
41 cagttgaaa agggatctga atatttcat ctgcacacgc ttgtggagac ctccggcattc 660
42 tcttccatgg tcctcgcccg ctacgtgagt cagattcgcg cccagctgtt gaaagtggc 720
43 ttccagggaa ttgaacccca gatcaacgac tgggtcgcca tcaccaaggt aaagaaggcc 780
44 ggagccaata aggtgggtgaa ttctgggtat attccgcct acctgctgcc gaaggtccaa 840
45 cccggagcttc agtggcggtg gacaaacctg gacgagtata aattggccgc cctgaatctg 900
46 gaggagcgc aacggctcggt cgcgcgtt ctggcagaat cctcgcagcg ctcgcaggag 960
47 gcggcttcgc agcgtgagtt ctgcgtgac ccggcatca aaagcaagac ttcccagaaa 1020
48 tacatggcgc tcgtcaactg gtcgtggag cacggcatca ttcccgagaa gcagtggatc 1080
49 caggaaaatc aggagagcta ccttccttc aactccaccg gcaactctcg gagccagatc 1140
50 aaggccgcgc tcgacaacgc gaccaaaatt atgagtcga caaaaagcgc ggtggactac 1200
51 ctctgtgggaa gctccgttcc cgaggacatt tcaaaaaaca gaatctggca aatttttgag 1260
52 atgaatggct acgaccggc ctacgcgggta tccatcctt acggctggtg tcagcgctcc 1320
53 ttcaacaaga ggaacaccgt ctggctctac ggaccggcca cgaccggcaa gaccaacatc 1380
54 gcggaggccca tcgccccacac tgcgtccctt tacgcgtgcg tgaactggac caatgaaaac 1440

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/533,427B

DATE: 07/24/2002

TIME: 15:53:54

Input Set : A:\PTO.DC.TXT

Output Set: N:\CRF3\07242002\I533427B.raw

55	tttcccttta	atgactgtgt	ggacaaaaatg	ctcatttgg	gggaggaggg	aaagatgacc	1500
56	aacaagggtgg	ttgaatccgc	caaggccatc	ctgggggct	caaaggtgcg	ggtcgatcag	1560
57	aatgtaaat	cctctgttca	aattgattct	accctgtca	ttgttaactc	caatacaaaac	1620
58	atgtgtgtgg	tggtgatgg	gaattccacg	accttgaac	accagcagcc	gctggaggac	1680
59	cgcattttca	aatttgaact	gactaagccg	ctcccgccag	atttggcaa	gattactaaag	1740
60	caggaagtca	aggactttt	tgcttggca	aaggtaatc	aggtcccggt	gactcacgag	1800
61	ttttaagttc	ccagggaaatt	ggcgggaaact	aaagggcgg	agaaatctct	aaaacgcccc	1860
62	ctgggtgacg	tcaccaatac	tagctataaa	agtctggaga	agcgggcccag	gctctcattt	1920
63	gttcccggaga	cgcctcgcag	ttcagacgtg	actgttgc	ccgctccct	gcgaccgctc	1980
64	aatttgaatt	caaggtatga	ttgcaaatgt	gactatcatg	ctcaatttga	caacatttct	2040
65	aacaatgtg	atgaatgtga	atatttgaat	cggggcaaaa	atggatgtat	ctgtcacaat	2100
66	gtaactcact	gtcaaatttgc	tcatgggatt	ccccctggg	aaaaggaaaa	cttgcagat	2160
67	tttgggattt	ttgacgatgc	caataaagaa	cagtaaataa	agcgagtagt	catgtctttt	2220
68	gttgcattcacc	ctccagatttgc	gttggaaagaa	gttgcgttgc	gtcttcgcga	gtttttggc	2280
69	cttgaagccgg	gcccaccgaa	accaaaaccc	aatcagcagc	atcaagatca	agcccgtgg	2340
70	cttgcgttgc	ctgggttataa	ctatctcgaa	cccggaaacg	gtctcgatcg	aggagagcct	2400
71	gtcaacaggc	cagacgaggt	cgcgcgagag	cacgacatct	cgtacaacga	gcagcttgcg	2460
72	gcgggagaca	acccttacact	caagtacaac	cacgcccgg	ccgagtttca	ggagaagctc	2520
73	gccgacgaca	catcccttcgg	gggaaaccc	ggaaaggcag	tctttcaggc	caagaaaagg	2580
74	gttctcgaaac	cttttggcct	gttgcgttgc	gttgcgttgc	cgggccctac	cgggaaagccg	2640
75	atagacgacc	actttccaaa	aagaaagaag	gtctcgaccg	aagaggactc	caagccttcc	2700
76	acctcgtag	acggccaaac	tggacccac	ggatcccac	agctgcataat	cccagcccaa	2760
77	ccagcctcaa	gtttgggagc	tgatacaatg	tctgcggag	gtggcggccc	attggcgcac	2820
78	aataaccaag	gtgcccgttgc	agtggcaat	gcctcggag	attggcatttgc	cgattccacg	2880
79	tggatggggg	acagagtcgt	caccaagttcc	acccgaacct	gggtgcgtcc	cagctacaac	2940
80	aaccaccatgt	accgagagat	caaaaacggc	tccgtcgtac	gaagcaacgc	caacgcctac	3000
81	tttggataca	gcaccccttgc	ggggtaacttgc	gactttaacc	gtttccacag	ccactggagc	3060
82	cccccggact	ggcaaaagact	catcaacaaac	tactggggct	tcagaccccg	gtccctcaga	3120
83	gtcaaaatct	tcaacatttca	agtcaaaagag	gtcacgggtc	aggactccac	caccaccatc	3180
84	gccaacaacc	tcaccccttcc	cgttccaaatgt	tttacggacg	acgactacca	gtgtccctac	3240
85	gtcgtcggtca	acgggaccga	gggatgccttgc	ccggcccttcc	ctccgcaggt	cttacgcgt	3300
86	ccgcgttacg	gttacgcgtac	gtctgaaccgc	gacaacacag	aaaatccac	cgagaggagc	3360
87	agcttcttct	gccttagatgt	ctttccac	aagatgttgc	gaacgggca	caactttgcg	3420
88	tttacccatca	acttttgcgttgc	gggtcccttgc	cactccatgt	tcgttcccg	tcagaaccttgc	3480
89	ttcaagctgg	ccaaaccgcgt	gttggaccat	tacttgcgttgc	gtttcggttgc	cacaataac	3540
90	actggccgg	tccaggatcaa	caagaaccc	gccgggat	acgccaacac	ctacaaaaac	3600
91	tgggtcccg	ggcccatggg	ccgaaaccc	ggcttgcgttgc	tgggtcccg	ggtcaaccgc	3660
92	gccagtgtca	gcgccttcgc	cacgaccaat	aggatggagc	tcgagggcgc	gagttaccag	3720
93	gtgccccccgc	agccgaacccgg	catgaccaac	aacctccagg	gcagcaacac	ctatgccttgc	3780
94	gagaacacta	tgatcttcaa	cagccagccg	gcgaacccgg	gcaccacccgc	cacgtaccc	3840
95	gagggcaaca	tgctcatcac	cagcgttgc	gagacgcac	cggtgaaccc	cgtggcgat	3900
96	aacgtcgccg	ggcagatggc	caccaacaaac	cagacttcc	ccactgccttgc	cgccaccggc	3960
97	acgtacaacc	tccaggaaat	cgttcccg	agcgttgcgttgc	tggagaggg	cgtgtaccc	4020
98	caaggaccca	tctggccaa	gatcccac	acggggccgc	actttccaccc	ctctccggcc	4080
99	atggggccgtt	tcggacttca	acacccaccc	cccatgtatgc	tcatcaagaa	cacgcctgt	4140
100	cccgaaata	tcaccagctt	ctcgacgttgc	cccgctcgtca	gtttcatc	ccagtgatc	4200
101	accggccagg	tcaccgttgc	gatggatgg	gagctcaaga	aggaaaactc	caagaggttgc	4260
102	aacccagaga	tccagtacac	aaacaactac	aacgacccccc	agtttgcgttgc	cttgccttgc	4320
103	gacagcaccg	gggaatacag	aaccaccaga	cctatcgaa	cccgat	acccggaccc	4380

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/533,427B

DATE: 07/24/2002
TIME: 15:53:54

Input Set : A:\PTO.DC.TXT
Output Set: N:\CRF3\07242002\I533427B.raw

104 ctttaaccca ttcatgtcgc ataccctcaa taaaaccgtgt attcgtgtca gtaaaaatact 4440
 105 gcctcttggc gtcattcaat gaataacagc ttacaacatc tacaaaaacct ccttgcgttga 4500
 106 gagtggtggca ctctcccccc tgcgcgttc gctcgctcgc tggctcggtt ggggggggtgg 4560
 107 cagctcaaag agctgccaga cgacggccct ctgcccgtcg cccccccaaa cgagccagcg 4620
 108 agcgagcgaa cgcgacaggg gggagagtgc ca 4652
 110 <210> SEQ ID NO: 2
 111 <211> LENGTH: 390
 112 <212> TYPE: PRT
 113 <213> ORGANISM: Artificial Sequence
 115 <220> FEATURE:
 116 <223> OTHER INFORMATION: Description of Artificial Sequence:/Note =
 117 synthetic construct
 119 <400> SEQUENCE: 2
 120 Met Ala Leu Val Asn Trp Leu Val Glu His Gly Ile Thr Ser Glu Lys
 121 1 5 10 15
 122 Gln Trp Ile Gln Glu Asn Gln Glu Ser Tyr Leu Ser Phe Asn Ser Thr
 123 20 25 30
 124 Gly Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Thr Lys
 125 35 40 45
 126 Ile Met Ser Leu Thr Lys Ser Ala Val Asp Tyr Leu Val Gly Ser Ser
 127 50 55 60
 128 Val Pro Glu Asp Ile Ser Lys Asn Arg Ile Trp Gln Ile Phe Glu Met
 129 65 70 75 80
 130 Asn Gly Tyr Asp Pro Ala Tyr Ala Gly Ser Ile Leu Tyr Gly Trp Cys
 131 85 90 95
 132 Gln Arg Ser Phe Asn Lys Arg Asn Thr Val Trp Leu Tyr Gly Pro Ala
 133 100 105 110
 134 Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Thr Val Pro
 135 115 120 125
 136 Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
 137 130 135 140
 138 Cys Val Asp Lys Met Leu Ile Trp Trp Glu Glu Gly Lys Met Thr Asn
 139 145 150 155 160
 140 Lys Val Val Glu Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys Val Arg
 141 165 170 175
 142 Val Asp Gln Lys Cys Lys Ser Ser Val Gln Ile Asp Ser Thr Pro Val
 143 180 185 190
 144 Ile Val Thr Ser Asn Thr Asn Met Cys Val Val Val Asp Gly Asn Ser
 145 195 200 205
 146 Thr Thr Phe Glu His Gln Gln Pro Leu Glu Asp Arg Met Phe Lys Phe
 147 210 215 220
 148 Glu Leu Thr Lys Arg Leu Pro Pro Asp Phe Gly Lys Ile Thr Lys Gln
 149 225 230 235 240
 150 Glu Val Lys Asp Phe Phe Ala Trp Ala Lys Val Asn Gln Val Pro Val
 151 245 250 255
 152 Thr His Glu Phe Lys Val Pro Arg Glu Leu Ala Gly Thr Lys Gly Ala
 153 260 265 270
 154 Glu Lys Ser Leu Lys Arg Pro Leu Gly Asp Val Thr Asn Thr Ser Tyr
 155 275 280 285

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/533,427B

DATE: 07/24/2002
TIME: 15:53:54

Input Set : A:\PTO.DC.TXT
Output Set: N:\CRF3\07242002\I533427B.raw

156 Lys Ser Leu Glu Lys Arg Ala Arg Leu Ser Phe Val Pro Glu Thr Pro
157 290 295 300
158 Arg Ser Ser Asp Val Thr Val Asp Pro Ala Pro Leu Arg Pro Leu Asn
159 305 310 315 320
160 Trp Asn Ser Arg Tyr Asp Cys Lys Cys Asp Tyr His Ala Gln Phe Asp
161 325 330 335
162 Asn Ile Ser Asn Lys Cys Asp Glu Cys Glu Tyr Leu Asn Arg Gly Lys
163 340 345 350
164 Asn Gly Cys Ile Cys His Asn Val Thr His Cys Gln Ile Cys His Gly
165 355 360 365
166 Ile Pro Pro Trp Glu Lys Glu Asn Leu Ser Asp Phe Gly Asp Phe Asp
167 370 375 380
168 Asp Ala Asn Lys Glu Gln
169 385 390
173 <210> SEQ ID NO: 3
174 <211> LENGTH: 610
175 <212> TYPE: PRT
176 <213> ORGANISM: Artificial Sequence
178 <220> FEATURE:
179 <223> OTHER INFORMATION: Description of Artificial Sequence:/Note =
180 synthetic construct
182 <400> SEQUENCE: 3
183 Met Ala Thr Phe Tyr Glu Val Ile Val Arg Val Pro Phe Asp Val Glu
184 1 5 10 15
185 Glu His Leu Pro Gly Ile Ser Asp Ser Phe Val Asp Trp Val Thr Gly
186 20 25 30
187 Gln Ile Trp Glu Leu Pro Pro Glu Ser Asp Leu Asn Leu Thr Leu Val
188 35 40 45
189 Glu Gln Pro Gln Leu Thr Val Ala Asp Arg Ile Arg Arg Val Phe Leu
190 50 55 60
191 Tyr Glu Trp Asn Lys Phe Ser Lys Gln Glu Ser Lys Phe Phe Val Gln
192 65 70 75 80
193 Phe Glu Lys Gly Ser Glu Tyr Phe His Leu His Thr Leu Val Glu Thr
194 85 90 95
195 Ser Gly Ile Ser Ser Met Val Leu Gly Arg Tyr Val Ser Gln Ile Arg
196 100 105 110
197 Ala Gln Leu Val Lys Val Val Phe Gln Gly Ile Glu Pro Gln Ile Asn
198 115 120 125
199 Asp Trp Val Ala Ile Thr Lys Val Lys Lys Gly Ala Asn Lys Val
200 130 135 140
201 Val Asp Ser Gly Tyr Ile Pro Ala Tyr Leu Leu Pro Lys Val Gln Pro
202 145 150 155 160
203 Glu Leu Gln Trp Ala Trp Thr Asn Leu Asp Glu Tyr Lys Leu Ala Ala
204 165 170 175
205 Leu Asn Leu Glu Glu Arg Lys Arg Leu Val Ala Gln Phe Leu Ala Glu
206 180 185 190
207 Ser Ser Gln Arg Ser Gln Glu Ala Ala Ser Gln Arg Glu Phe Ser Ala
208 195 200 205
209 Asp Pro Val Ile Lys Ser Lys Thr Ser Gln Lys Tyr Met Ala Leu Val

VERIFICATION SUMMARY

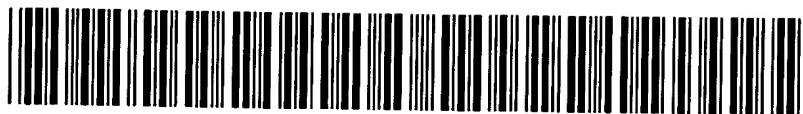
PATENT APPLICATION: US/09/533,427B

DATE: 07/24/2002

TIME: 15:53:55

Input Set : A:\PTO.DC.TXT

Output Set: N:\CRF3\07242002\I533427B.raw



Creation date: 10-10-2003
Indexing Officer: AGOMEZ - ALFREDO GOMEZ, JR.
Team: OIPEBackFileIndexing
Dossier: 09533427

Legal Date: 08-29-2002

No.	Doccode	Number of pages
1	C.AD	1

Total number of pages: 1

Remarks:

Order of re-scan issued on